EARTH EXPLORERS PROGRAM FLIGHT & GROUND SAFETY REQUIREMENTS

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Approval by:

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PREFACE

The purpose of this document is to serve as a resource to the Project/Mission Team of each Earth Explorers project/mission for complying with necessary NASA safety requirements.

GENERAL

All Mission/Project Teams shall establish, implement and maintain a system safety program in accordance with the following requirements:

- Identifies and controls hazards to personnel, facilities, support equipment, and the flight system during all stages of mission/project development. The safety program shall address hazards in the flight hardware, associated software, ground support equipment, and support facilities.

- Meets the system safety requirements stated in the applicable launch site safety regulation.

- Meets the baseline industrial safety requirements of each mission/project team members institution, as well as any special contractually imposed mission/project unique obligations.

The safety program shall be documented in a Safety Plan for each Mission/Project, and shall apply to all work performed by the Mission/Project, its subcontractors and suppliers, and Mission Team members.

FLIGHT

Flight hardware and software systems developers shall implement a system safety program in accordance with the requirements imposed by the appropriate launch range and the launch vehicle manufacturer or launch service provider. The requirements are mandatory and are not negotiable, but may be tailored to the extent that not all requirements apply to every project/mission. The tailoring of the requirements to the specific mission is done with the applicable launch range safety organization.

Each project/mission shall comply with the "NASA Policy For Limiting Debris Generation" (NPD 8710.3) and the NASA Safety Standard "Guidelines and Assessment Procedure for Limiting Orbital Debris" (NSS 1740.14). Each Project/Mission Team shall be responsible for performance of the required orbital debris assessment.

The following are mandatory compliance requirements for hardware and software intended to be launched on any of the various launch vehicles/launch services. The Mission/Project Team ensures compliance with the requirements and certifies to the launch range, in the form of the Safety Data Package, that all of

the requirements have been met.

The following documents describe the complete safety program implementation and deliverables required to safely launch space hardware. The documents reference other requirements that the flight system developer must also meet to gain access to the launch site and subsequent launch.

TOP LEVEL SAFETY REQUIREMENTS DOCUMENTS:

Any payload (ELV or Shuttle) using Kennedy Space Center (KSC) facilities for testing, integration, etc. (including those at Eastern Test Range (ETR) and Western Test Range (WTR) where KSC has jurisdiction for reviewing procedures and facilities) shall comply with KHB 1710.2C, "Kennedy Space Center Safety Practices Handbook".

For Shuttle Missions:

1) NSTS 1700.7B, "Safety Policy and Requirements for Payloads Using the Space Transportation System".

2) 45 SPW S-100/KHB 1700.7B, "Space Shuttle Payload Ground Safety Handbook"

For ELV Missions at ETR or WTR:

EWR 127-1, "Eastern and Western Range Safety Requirements".

For Wallops Flight Facility (WFF) Missions:

RSM-93, "Range Safety Manual for Goddard Space Flight Center (GSFC)/Wallops Flight Facility (WFF)".

For Missions flying on the Pegasus launch vehicle:

1) "Pegasus Design Safety Requirements Document" (SSD TD-0005) (currently Rev B).

2) "Pegasus Safety Requirements Document for Ground Operations" (SSD TD-0018) (currently Rev A).